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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,667	06/19/2001	Andre Luiz Arias	33764R003	7582

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SMITH, GAMBRELL & RUSSELL, LLP
1850 M STREET, N.W., SUITE 800
WASHINGTON, DC 20036

EXAMINER

THORNTON, YVETTE C

ART UNIT PAPER NUMBER

1752

DATE MAILED: 04/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,667

Applicant(s)

ARIAS ET AL.

Examiner

Yvette C. Thornton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 5.5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This is written in reference to application number 09/787667 filed on June 19, 2001, which is a 371 of PCT/BR99/00079 filed on September 21, 1999.

Information Disclosure Statement

1. The Information Disclosure Statements filed on June 19, 2001 and April 11, 2001 have been entered and fully considered.

Response to Amendment

2. The preliminary amendments filed on June 11, 2001 and June 19, 2001 has been entered and fully considered.

Specification

3. The use of the trademark BAKELITE has been noted in this application (page 8, examples 1, 4, 7 and 10). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 101 and 112

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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6. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 15 provides for the use of a radiation sensitive composition, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

8. Claim 15 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Objections

9. Claims 2, 13 and 14 are objected to because of the following informalities: the said claims fail to contain a period at the end. Appropriate correction is required.

10. Claim 5 is objected to because of the following informalities: the said claim contain a typographical error. The examiner suggests changing "form" to --from--. Appropriate correction is required.

Claim Interpretations

11. Claim 3 contains a broad range together with two narrow ranges that falls within the broad range (in the same claim). The examiner has applied the broadest interpretation of the

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claims for examination. The examiner suggests amending the claims to contain one specific range to avoid confusion.

12. Claim 8 refers to “the anion” in line 1. However claim 6 from which it depends, has no reference of an anion. The examiner realizes that the onium salt of instant claim 6 inherently has an anion. Therefore the claim is not indefinite. However the examiner suggests re-wording the claims to read as follows: “. . . wherein the onium salt has an anion,” for better clarity.

13. The examiner does not view claims 10-12 as requiring the choice of a stabilizing acid. The following rejections are based on such an interpretation. Claim 1 set forth that the stabilizing acid is an optional component, therefore the limitation of claims 10-12 are met when the acid is not present.

14. Claims 13 and 14 refer to a “write-the-background mode” and a “write-the-image mode”. The examiner has applied the definition of the specification to the said terms. A “write-the-background mode” is a positive working system and a “write-the-image mode” is a negative working system (see spec. pg. 7).

15. Claims 13-14 also refer to a “polyphenolic” polymer and a “polyhydric” polymer. The specification states that the “polyphenolic” polymer is the claimed first polymer and the “polyhydric” is the claimed second polymer. The claims have been interpreted in light of the specification. The examiner notes that claim 2 uses the terms “first polymer” and “second polymer”. The examiner suggests using consistent terminology to avoid confusion.

16. Furthermore, the said claims 13-14 contain specific amounts of the components present in the composition. The examiner has interpreted claim 13 to be a Markush-type

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group comprising either a positive working system or a negative working system. Claim 14 has been interpreted as a Markush type group comprising 4 different compositions (A, B, A' and B'). Clarification is requested.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

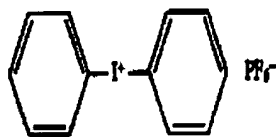
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

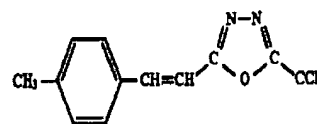
18. Claims 1-2, 4-12, 15-18 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchiya et al. (US 5786125 A). Tsuchiya exemplifies in examples 1-5 the preparation of a positive light sensitive lithographic printing plate. The substrate is an aluminum plate, which has been textured and anodized (c. 22, l. 65-c. 23, l. 7). The said plate is coated with a coating solution and dried to form a primer layer (c. 23, l. 8-11). A light sensitive layer is then coated on the primer layer and dried to a weight of 2 g/m². The light sensitive layer comprises (1) a carbon black dispersion; (2) bisphenol A-formaldehyde resol resin; (3) m-cresol-formaldehyde novolak resin; (4) an acid precursor; (5) a surfactant and (6) a solvent (c. 23, l. 26-c. 24, l. 20). Example 1 exemplifies the use of an acid precursor

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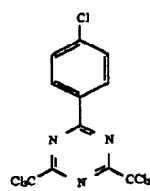
(III-2) having the structure

(c. 8, l. 55; Table 1). Examples 3 and 5



used acid precursor (I-2) and (II-2) which have the structures:

and



respectively. It is the examiner's position that the use of bisphenol A-

formaldehyde resol resin and m-cresol-formaldehyde novolak resin meets the limitations of the claimed dual polymer binder system wherein bisphenol A-formaldehyde resol resin is the second polymer which is the product of bisphenol A and an aldehyde and m-cresol-formaldehyde novolak resin is the first polymer which is the product of m-cresol and an aldehyde. It is the examiner's position that compound (III-2) meets the limitations of the claimed iodonium salt having a hexafluorophosphate anion. Specifically, compound (III-2) is diphenyliodonium hexafluorophosphate as set forth in instant claim 9. Compounds (I-2) and (II-2) meet the limitations of a dye derived from the oxazolylium class as set forth in instant claim 5.

Example 1 further teaches applying a silicon rubber layer over the said light sensitive layer and laminating with a stretched polypropylene film to obtain a light sensitive lithographic printing plate. The resulting plate was exposed with a YAG laser; the laminated film was pressed off; the plate was heated and then developed.

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19. Claims 1-4, 6-7, 10-13, 15-18 and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi (US 6042987 A). Kobayashi teaches a negative type image recording material, which is capable of effecting direct plate making. Examples 6-8 exemplify three kinds of solutions [D-1] to [D-3] which differed in the kind of organic base. These solutions were coated on aluminum plates, which was textured and anodized (c. 55, l. 54-66). The weight of each coating was 1.8 g/m^2 (c. 58, l. 1-10). The said solutions comprise diphenyliodonium trifluoromethanesulfonate as the acid generating compound; infrared absorbing agent NK-2014 which is a cyanine dye; novolak resin obtained from cresol and formaldehyde having a molecular weight of 5800; a resol resin obtained from bisphenol A and formaldehyde having a molecular weight of 1600; an organic base from Table 3; a surfactant and two solvents. The coated plates were exposed to IR rays, treated by heating at 120°C , developed and rinsed (c. 58, l. 11-60). It is the examiner's position that the taught resol resin meets the limitations of the claimed second polymer (polyhydric) and the taught novolak meets the limitation of the claimed first polymer (polyphenolic). The said solutions comprise approximately 6% acid generator; 4% infrared absorbing compound; 45% novolak; 41 % resol, based on solid components all which fall within the range of the write the image mode of instant claim 13.

Examples 16-18 exemplify three kinds of solutions [I-1] to [I-3] which differed in the kind of amino acid compound. These solutions were coated on aluminum plates, which was textured and anodized (c. 60, l. 40-54). The weight of each coating was 1.8 g/m^2 (c. 62, l. 45-55). The said solutions comprise diphenyliodonium trifluoromethanesulfonate as the acid generating compound; infrared absorbing agent NK-2014 which is a cyanine dye; novolak

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resin obtained from cresol and formaldehyde having a molecular weight of 5800; a resol resin obtained from bisphenol A and formaldehyde having a molecular weight of 1600; an amino acid from Table 8; a surfactant and two solvents. The coated plates were exposed to IR rays, treated by heating at 120°C, developed and rinsed (c. 63, l. 25-44). It is the examiner's position that the taught resol resin meets the limitations of the claimed second polymer (polyhydric); the taught novolak meets the limitation of the claimed first polymer (polyphenolic); and the amino acid meets the limitation of a stabilizing acid. Specifically nicotinic acid is an aromatic carboxylic acid as set forth in instant claims 10-11. The said solutions comprise approximately 6% acid generator; 4% infrared absorbing compound; 46% novolak; 41 % resol; and 0.3% acid based on solid components all which fall within the range of the write the image mode of instant claim 13.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 3 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. (US 5786125 A) as applied to claims 1-2, 4, 6-12, 15-18 and 20-22 above.

Tsuchiya as discussed above, teaches all the limitations of the claims except Tsuchiya lacks explicit details pertaining to the molecular weight of the taught resol and novolak resins.

However since the resins fall within the scope of the claimed polymers one of ordinary skill in

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the art would expect that the molecular weights would fall within the broad range of instant claim 3.

Tsuchiya also fails to teach a composition comprising the specific composition of instant claims 13 and 14. Tsuchiya however does teach that the weight ratio of the resol resin to the novolak resin used is 10/90 to 95/5 (c. 3, l. 23-24). The infrared absorber can be added in an amount of 0.01 to 50% by weight and preferably 0.1-20% by weight based on the total solid content of the light sensitive layer composition (c. 3, l. 55-58). The acid precursors are added in the amount of 0.001 to 40% by weight, preferably 0.1 to 20% by weight (c. 17, l. 16-22). The taught ranges clearly encompass those claimed by the applicant. Although Tsuchiya fails to exemplify a composition within the claimed ranges, one of ordinary skill in the art would have been motivated by the teaching of Tsuchiya to use any amount within the taught range to make a light sensitive composition which requires no fountain solution for direct plate making (c. 1, l. 5-12).

22. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 6042987 A) as applied to claims 1-4, 6-7, 10-13, 15-18 and 20-22 above. Kobayashi as discussed above teaches all the limitation of the instant claims except it failed to exemplify the use of an anion as set forth in instant claim 8. Kobayashi does teach that examples of particularly preferred counter anions of the taught onium salts include methanesulfonate (1), mesitylenesulfonate (21), etc. (c. 24, l. 34-c. 25, l. 27). One of ordinary skill in the art would have been motivated to substitute any of the particularly preferred anions for the exemplified trifluoromethanesulfonate anion of the examples and expect reasonably similar results.

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Kobayashi also failed to exemplify a composition as set forth in instant claim 14. Kobayashi does however teach that the resol resin is used in the amount of 5-80% by weight, preferably 10-70%, particularly preferably 15-65% of the total solid components. When the amount of the resol resin is less than 5% by weight, a negative image is not formed. The amount exceeding 80% by weight is not preferable from the viewpoint of stability during storage (c. 42, l. 22-32). The alkali soluble resin (i.e., novolak) is used in the particularly preferable amount of 20-90% by weight. When the amount is less than 5% by weight, durability of the recording layer is deteriorated and when the amount exceeds 95% no image is formed (c. 48, l. 63-49, l. 5). One of ordinary skill in the art would have been motivated by the teachings of Kobayashi to use any amount within the particularly preferred range to make an image recording material which has improved storage stability and durability.

Allowable Subject Matter

23. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

24. The following is a statement of reasons for the indication of allowable subject matter: review of the prior art failed to teach and/or suggest a curing step after development as set forth in instant claim 19. One of ordinary skill in the art would not have been motivated nor would it have been obvious to include a curing step after development in any of the prior art teaching of Tsuchiya or Kobayashi.

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Conclusion

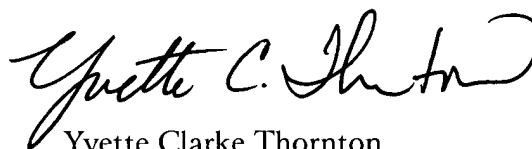
25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nguyen et al. (US 5919601 A) pertaining to radiation sensitive compositions and printing plates.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 703-305-0589. The examiner can normally be reached on Monday-Thursday 8-6:30.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C. Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

28. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.



Yvette Clarke Thornton
Junior Examiner
Art Unit 1752

yct
April 1, 2003